

Escondido - Schools save with solar panels - Escondido and Poway districts look to reduce their reliance on SDG&E

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With power rates skyrocketing for San Diego County school districts, Escondido's has become the latest to agree to a power purchase agreement with a Silicon Valley-based solar company. The deal could help bring \$9.8 million in savings over the next 20 years, a district official said.

Escondido Union High School District has dodged some of the larger power bills hitting school districts in San Diego County because of past initiatives to replace old heating and air-conditioning units, and replace light fixtures with more efficient ones, said Michael Simonson, associate superintendent of business services with the Escondido school district.

Over the past two school years, for instance, the Escondido school district has cut its demand for power by 958,000 kilowatt hours. Meanwhile, its power bill from San Diego Gas & Electric Co. has risen by about \$195,000, or 13 percent, from \$1.43 million in the 2013-14 school year to \$1.62 million, this past year.

"The increased costs paid to utilities are dollars that we can't spend on the classroom," Simonson said. "We are trying to put that destiny in our hands and balance out some of those potential rate increases. When you look at what is in front of us, this is a good start for the next 20 years."

San Jose-based SunPower Corp. hopes to begin construction of the solar panels by next summer at Del Lago Academy, and Orange Glen, San Pasqual and Escondido high schools.

The panels will be situated atop carports planned for the student parking lots, and will provide shade during the day, and protection from rainy weather. The carports will be wide enough to shade two rows of cars.

The solar panels are just one part of the Escondido district's energy-conservation plans.

Tesla Motors Inc. also has a deal in place to build stationary battery storage systems for three of the Escondido school district's high schools - a project that officials hope could save hundreds of thousands of dollars annually in electricity costs.

The Silicon Valley-based company - best known for its pioneering plug-in electric cars - unveiled home and industrial battery packs back in April that can provide backup power or help businesses and government agencies avoid high-priced electricity. The Escondido Union High School District is believed to be one of its first big clients.

Tesla has proposed charging several large lithium ion batteries at night - when power costs fall to about 12 cents per kilowatt hour - and using the stored energy during the day, when rates can rise to 42 cents, according to Simonson.

The school district recently completed building storage facilities for the batteries, but the project has been kept under wraps because Tesla considers the project proprietary. Tesla spokesman Ted Merendino declined to comment on the batteries.

A lithium ion battery has twice the energy capacity of a nickel-cadmium battery and greater stability and safety, experts say. Simonson estimates that the stationary battery storage systems could collectively cut the school district's rising utility costs by as much as \$300,000 annually after they become operational.

Escondido isn't the only school district taking steps to cut its utility bill with SDG&E.

Poway Unified School District is waiting for the state's Division of State Architect to approve the installation of lithium ion batteries at 10 schools in 2016. The batteries will come from Green Charge Networks, a Santa Clara-based company specializing in commercial energy storage.

Michael Tarantino, Poway Unified's director of facilities, maintenance and operations, said its storage batteries are designed to lower the charges for expensive power bought from SDG&E during the middle of the day.

Tarantino estimates that the battery storage systems will save the school district about \$133,000 the first year, and \$1.6 million over a decade.

"I was a little reluctant on this," said Tarantino, who pointed to some concern about the batteries after a battery storage facility exploded in Poway last June. A kinetic energy storage prototype being tested at Quantum Energy Storage's research and development lab exploded, injuring five people.

The Poway district also has plans to begin construction on solar projects at 17 schools in January.

Escondido and Poway are both part of a coalition of school districts in San Diego County that are fighting the rise in power bills.

San Diego Assemblywoman Shirley Weber plans to introduce legislation in January that could carve out a new rate class for San Diego County's 42 public school districts, which saw their power bills rise a combined \$25.8 million last school year. School district officials have been fighting for months to get some rate relief from the power utility and have also pleaded their case to state electricity regulators, to no avail.

Weber - a Democrat who represents California's 79th Assembly District, including the

cities of Chula Vista, La Mesa, Lemon Grove, National City and San Diego - said she is working on a legislative fix that would remove San Diego's school districts from their current commercial customer rate class and place them into a special nonprofit one free of energy spikes and charges. She's undecided on whether to ask for a cap on rates.